Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A micro TPV generator for generating an electric current in response to combustion of a fuel comprising, in combination:

~~a combustion chamber comprising an internal chamber where combustion occurs, the internal chamber having an internal expansion step configured to generate a significantly even temperature distribution on an outer wall of the combustion chamber,~~

~~an emitter engaged around or at least in thermal connection to said chamber, and~~

~~a photovoltaic cell in proximity to said emitter and configured to generate an electrical current depending on photons incident thereon~~

an inlet and a combustor downstream from the inlet, wherein the combustor comprises a first section and a second section positioned between the inlet and the first section, wherein a cross-sectional width of the first section is greater than a cross-sectional width of the second section;

the first section forms an internal chamber having an outer wall, and an internal expansion step comprises transitioning from the second section to the first section, and combustion of the fuel occurs at the first section;

an emitter formed around the outer wall, wherein the emitter is capable of generating photons; and

a photovoltaic cell in proximity to the emitter, which generates the electrical current depending on photons incident thereon.

2. (Currently amended) A micro TPV generator as claimed in claim 1 wherein ~~said~~ the internal chamber comprises a platinum catalyst coating on an inner wall thereof.

3. (Currently amended) A micro TPV generator as claimed in claim 2 wherein ~~said~~ the outer wall is substantially cylindrical.

4. (Currently amended) A micro TPV generator as claimed in claim 3 wherein ~~said~~ the expansion step is a backwards facing step.

5. (Currently amended) A micro TPV generator as claimed in claim 4 wherein ~~said~~ the emitter has an emission characteristic matched to the bandgap characteristic of ~~said~~ the photovoltaic cell.

6. (Currently amended) A micro TPV generator as claimed in claim 5 wherein ~~said~~ the emitter is formed of Co-/Ni-doped MgO ribbon or tape.

7. (Currently amended) A micro TPV generator as claimed in claim 5 wherein ~~said~~ the emitter is formed of SiC.

8. (Currently amended) A micro TPV generator as claimed in claim 5 further comprising a filter between ~~said~~ the emitter and ~~said~~ the photovoltaic cell configured to pass photons above a threshold and reflect photons under ~~said~~ the threshold.

9. (Currently amended) A micro TPV generator as claimed in claim 8 wherein ~~said~~ the filter comprises 9 layers of Si-SiO2 bonded between a glass slide and ~~said~~ the photovoltaic cell.

10. (Currently amended) A micro TPV generator as claimed in claim 9 wherein ~~said~~ the photovoltaic cell is formed from a GaSb based semiconductor.

11. (Currently amended) A micro TPV generator as claimed in claim 1 wherein ~~said~~ the internal chamber ~~having~~ has an internal diameter less than 1 mm ~~for~~ when the fuel is hydrogen fuel at compressed pressure.

12. (Currently amended) A micro TPV generator as claimed in claim 1 wherein ~~said~~ the internal chamber ~~having~~ has an internal diameter less than 3 mm ~~for~~ when the fuel is propane at atmospheric pressure.

13. (Currently amended) A micro TPV generator as claimed in claim 1 wherein ~~said internal chamber comprises a first section and a second section, wherein the cross-sectional width of said first section is greater than the cross-sectional width of said second section to form said expansion step~~the emitter is positioned remote from the second section.

14. (Currently amended) A micro TPV generator as claimed in claim 1 wherein ~~said~~ the internal chamber comprises a first tubular section and a second tubular section, wherein ~~said~~ the first tubular section has a diameter that is greater than [[the]]a diameter of ~~said~~ the second tubular section ~~to form said~~ and the expansion step is formed from the second tubular section to the first tubular section.

15. (Currently amended) A micro TPV generator as claimed in claim 1 wherein ~~said~~ the photovoltaic cell is fabricated from one or more of:

InGaSb, and

InGaAsSb.

16. (Canceled)

17. (Currently amended) A micro TPV generator as claimed in claim 5 wherein ~~said~~ the ~~combustion chamber~~ combustor comprises SiC.

18. (Currently amended) [[A]]The micro TPV generator ~~comprising:~~

~~a combustion chamber comprising an internal chamber where combustion occurs, the internal chamber having an internal expansion step configured to generate a significantly even temperature distribution on an outer wall of the combustion chamber, an~~ emitter is formed as part of ~~said~~ the combustor. ~~chamber wall, and a photovoltaic cell in proximity to said emitter and configured to generate an electrical current depending on photons incident thereon~~.

19. (Previously presented) A micro TPV generator as claimed in claim 1 comprising a hexagonal cell arrangement.